Government of
Saskatchewan

Annual Report 1989-90

Saskatchewan
Parks and
Renewable
Resources

Annual Report 1989-90

For the fiscal year ending March 31, 1990

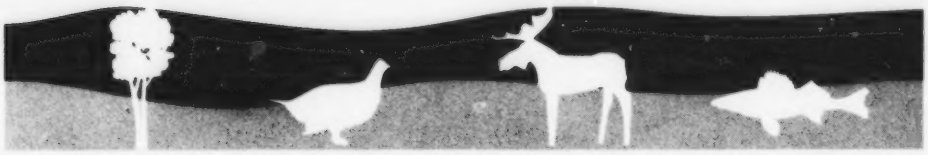
Saskatchewan
Parks and
Renewable
Resources

91-04495/

Mission & Values

Saskatchewan Parks and Renewable Resources

- *We are entrusted with the care of Saskatchewan's wealth of natural resources - fish, forests, lands, parks and wildlife.*
- *We ensure these resources are wisely protected and managed for recreation, economic and subsistence use and sustained for future generations.*
- *We consult and inform the public about our plans and activities. Our service is professional, attentive and friendly.*
- *We fulfill government expectations reliably and manage public assets prudently.*
- *We work as a team. Respect and recognition govern employee relations.*
- *We are proud of what we do. We are innovators and leaders in our field and have a positive impact on the quality of life in Saskatchewan.*



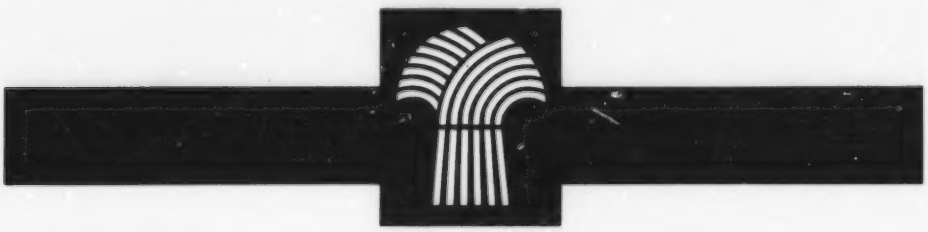


Table of Contents

Minister's Transmittal 2

Deputy Minister's Transmittal 2

Organization Chart 3

Department Organization 4

Programs 4
Operations 4
Support Services 5

Operating and Management 6

Program Accomplishments 9

Parks 9
Wildlife 13
Forestry 17
Fisheries 21
Resource Lands. 25

Financial Statement 26

Tables and Statistics 27

Inside front page:

Project WILD proved to be a valuable educational program enthusiastically received by students from kindergarten to grade six and beyond.

Quality Service and Resource Management Today and for the Future.

Minister's Transmittal

To Her Honour,
The Honourable Sylvia O. Fedoruk,
OC, SOM
Lieutenant Governor of the Province of Saskatchewan

Madam:

I have the honour to submit the Annual Report of Saskatchewan Parks and Renewable Resources for the year ending March 31, 1990. Earlier in the year, on October 3, 1989, Parks and Renewable Resources was established from the reorganization of the former Saskatchewan Parks, Recreation and Culture.

Among the highlights of the year was an agreement signed in August designating the adjoining Alberta and Saskatchewan Cypress Hills Provincial parks as the first interprovincial park in Canada. Co-operation between the two provinces involves protection and management of park resources, provision of visitor information, delivery of interpretive and educational programs and improvement of recreational opportunities.

Saskatchewan's commitment to wetlands conservation was demonstrated with establishment of the Saskatchewan Wetlands Conservation Corporation on January 10, 1990. The corporation's mandate is to co-ordinate activities of the North American Waterfowl Management Plan under which Saskatchewan will receive $42 million over the next five years to assist international efforts to restore duck populations to 1970s levels by the turn of the century.

For a second year in a row, the province experienced a severe forest fire season. It was also the costliest fire season on record, with $42 million spent in fighting fires. I commend department staff and all others who worked long, hard hours to fight the fires. The Edenwold Walleye Rearing Facility was completed in the spring. This fish nursery is the most intensive walleye production facility in Canada, with construction costs shared under the Canada-Saskatchewan Subsidiary Agreement on the Qu'Appelle Valley.

The department continued through the year to investigate and implement new efficiency and effectiveness initiatives and to improve service. Included in these was the establishment of a new unit, Management Services North, in Prince Albert to improve service to the department and to our clients in the north.

Overall, department staff made great strides in developing professional service and innovative programs during year.

Respectfully submitted,

Lorne A. Kopelchuk
Minister

Deputy Minister's Transmittal

To the Honourable Lorne A. Kopelchuk
Minister
Saskatchewan Parks and Renewable Resources

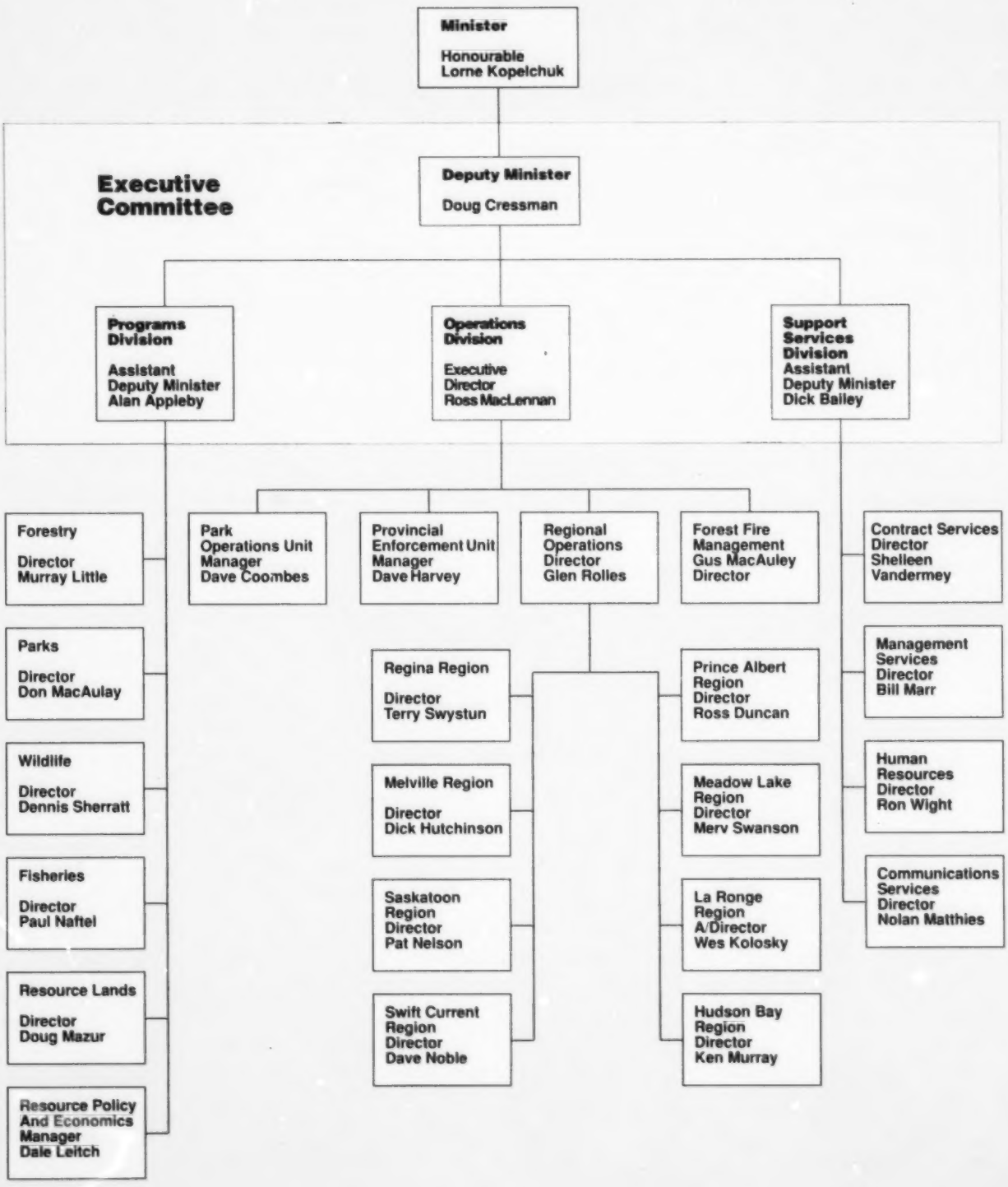
Sir:

I respectfully submit herewith the 1989/90 annual report of Saskatchewan Parks and Renewable Resources.

Respectfully,

Douglas Cressman
Deputy Minister

Organization Chart



The department is broadly organized into three major divisions:

Programs, Operations and Support Services.

Programs

The Programs Division, which includes five branches, is responsible for developing and managing integrated policy and programs related to Saskatchewan's parks, wildlife, forests, fisheries and resource lands.

Provincial parks, recreation sites, campgrounds and provincial historic parks are developed and managed through comprehensive planning, policy and programming provided by the Parks Branch. Park system planning, park management strategies, facility development plans and park visitor programs are key responsibilities. The branch also administers the Regional and Urban Parks Program which supports the local operation of 101 regional and four urban park authorities throughout the province.

The Wildlife Branch manages the wildlife resources for the benefit and use of Saskatchewan residents. It sets hunting and trapping seasons, works to safeguard rare and endangered species, develops programs to prevent wildlife damage to agricultural produce and property, and administers the Firearm Safety/Hunter Education Program. It designs and promotes programs that enhance the co-existence of wildlife and agriculture, including an increasing number of habitat conservation programs. Important wildlife lands are secured and administered by the branch under the Fish and Wildlife Development Fund.

Alan Appleby, Assistant Deputy Minister, Programs Division.

The role of the Forestry Branch is to develop and administer programs for the management of the province's forest resources. Effective forest management is undertaken through Forest Management Licence Agreements negotiated with major industry, as well as timber supply analyses, timber control, silviculture and forest inventory. Programming, undertaken in conjunction with other branches, is directed at optimizing social and economic benefits accruing from the forest resources for present and future citizens of Saskatchewan.

Management of the Saskatchewan fishery is the responsibility of the Fisheries Branch. Programs are designed to maintain fish stocks through fish conservation by regulating fish harvest and protecting fish habitat. Enhancement programs to increase fish stocks and broaden the range of fishing opportunities are also undertaken. The branch is responsible for monitoring the status and health of fish stocks, mobilizing economic potential in the fishery and allocating fish stocks to various user groups for optimum benefits to Saskatchewan residents.

Resource Lands Branch is responsible for the administration, disposition and management of the province's 37.5 million hectares of Crown resource lands. It develops and co-ordinates plans, policies, procedures and program alternatives to allocate and manage resource lands for the continuous social and economic benefit of Saskatchewan people.

Operations

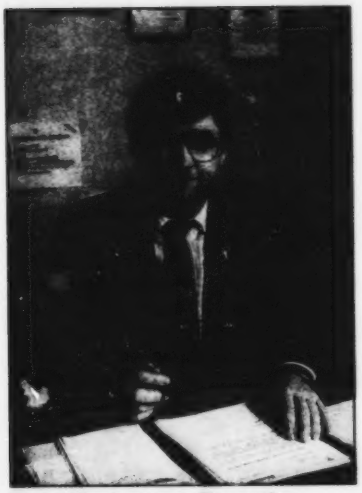
The Operations Division is responsible for delivering to the public the department's fisheries, forestry and forest fire protection, parks, resource lands and wildlife programs at the field and district levels. Operations ensures that legislation and regulations governing these programs are adhered to and enforced where necessary.

Division activities are carried on throughout the southern portion of the province by the Saskatoon, Melville, Regina and Swift Current Regions. Southern field operations also include operation of the Echo Valley Conference Centre, the Operational and Visitor Services Unit and the Provincial Enforcement Unit. In the northern half of Saskatchewan, activities are undertaken through the Meadow Lake, Prince Albert, Hudson Bay and La Ronge Regions. The Forest Fire Management Branch, situated in Prince Albert, is an important component of the Division's northern field activities.

Operating and maintaining provincial parks, recreation sites, picnic sites and campgrounds accounts for about 35 per cent of regional activities. This includes construction and maintenance of facilities, upkeep and enhancement of park grounds, provincial park security, providing information to visitors, operating recreation facilities such as golf courses and pools, and providing interpretive, recreation and aquatic programs. Winter activities include cross-country ski and snowmobile trail construction and maintenance. The Operational and Visitor Services Unit provides central administration and policy direction for park operation and customer services.

Forest fire detection and suppression account for over one-third of Operations' activities. The Forest Fire Management Branch provides central services for forest fire prevention, detection and fire suppression, aircraft contracting, equipment supply, technical services and staff training. The four northern regions recruit and supervise the ground forces necessary tc put out fires.

Wildlife activities concentrate on enforcement related to poaching, night hunting and illegal traffic of wildlife as well as routine enforcement of laws. Other wildlife activities include prevention of damage to crops, livestock or property by beaver, coyote, bear, and other big game and waterfowl, as well as assisting in wildlife surveys. The Provincial Enforcement Unit provides overall co-ordination and leadership in fish and wildlife enforcement.



Ross MacLennan, Executive Director, Operations Division.

Fisheries work includes enforcement of sport, commercial and domestic fishing regulations, stocking and monitoring of waterbodies, and capital development of fish enhancement projects.

Activities related to forestry and Crown resource lands include issuing land use leases and permits related to forest use, wild rice and surface dispositions for mineral exploration. A variety of forestry and land use inspections are performed to ensure compatibility with the resources under the department's jurisdiction.

Support Services

Support Services Division provides ongoing support for the achievement of the overall goals of the department. It consists of four branches responsible for a broad array of service functions.

Management Services Branch provides diverse technical and professional administrative and system services to the department in the form of accounts and payroll administration, revenue collection, grants administration, budgets and financial management, corporate planning and evaluation including internal audits, property management, and computer systems.

Effective public communication and promotion of the department's programs, policies and events are provided by Communications Services Branch. Media relations, advertising, display production,

Dick Bailey, Assistant Deputy Minister, Support Services Division

graphic art, photography, writing, employee communications and library management are among the services provided by this branch.

The detailed design, engineering and construction of buildings, services and facilities are among the services of Contract Services Branch. The branch also administers the department's radio communications services and develops and manages the department's capital budget. The branch provides contract administration services to ensure compliance with established standards and the orderly processing of contracts. A significant part of the responsibility of this branch also includes development and leasing of services and facilities in the park system.

Human Resources Branch provides personnel services to department employees including staffing, employment fairness support, classification, organization design, employee relations, employee recognition and occupational health and safety programs. Staff development and training is another significant function as is personnel records management.

Enforcement Operations

The department worked in co-operation with fish and wildlife agencies of neighboring provinces and states to solve a number of cases that now await trial. Since the spring of 1988, serious violations have been dealt with in an increasingly stiff manner by the courts, resulting in some of the largest fines on record for Wildlife Act violations.

1,072 calls to the 24 hour toll free TIP phone line resulted in 182 charges.

During the year, the department continued its program of enhanced training for resource law enforcement officers. The Enforcement Training Section provided 988 person-days of in-depth training to 191 officers. Training programs concentrated on safe procedures to effect necessary enforcement programs at minimum risk to the officer. The courses included hostility intervention, safe driving, boating and expert firearm handling.

The department's province-wide, 24-hour dispatch service handled officer requests and public concerns, assisted in officer emergencies and operated the toll-free Turn in Poachers Program.

Turn In Poachers (TIP) Program

The TIP Program allows anyone in Saskatchewan instant contact with a conservation officer 24 hours a day through a toll-free telephone number. In emergency situations, conservation officers can be on the scene within minutes. Overall, public co-operation has resulted in more hunting and fishing violators being discovered and prosecuted. In 1989/90, of the 1,072 calls received, 810 required immediate action and 182 charges were laid.

Integrated Resource Management

The department developed a framework for integrated resource planning and management and initiated discussions with northern communities and user groups regarding multiple use resource management agreements.

A pricing strategy combining licensing strategies for all renewable resources was completed and a pilot analysis of economic implications of different deer management options undertaken. A major accomplishment involved establishing the ground work and basis for inputting much of the department's geographically-related data into a computerized Geographical Information System (GIS).

The Integrated Resource Policy Unit also co-ordinated department input into multidisciplinary projects such as the South Saskatchewan Basin Study, Pesticide Registration Review Committee and the Rafferty-Alameda Fisheries, Wildlife and Outdoor Recreation Enhancement Program. The unit was disbanded in February and its duties devolved to various branches for more intensive programming.

Human Resources Management

During the year, in addition to standard human resource services such as staffing, classification and employee relations, the department delivered the summer student hiring program, co-op student hiring and annual Public Service Commission long-service recognition banquet.

The Resource Officer Classification Specification review was completed during the year. Completion of this project represents the culmination of several years of work and recognizes the ever-changing role of the resource officer. More than 70 reclassification actions resulted from this review.

Other accomplishments included computerization of employee long-service records, establishment of labor arbitration history files and resource library, as well as finalization of a number of key internal policies and procedures.

Employment Fairness activities progressed during the year and included exploring the possibility of a mentorship program, cross-cultural training for resource officers, advertising career opportunities for Natives, and developing career enhancement skills.

Staff Training and Development

In 1989/90, staff development activities involved nearly 2,980 person days of training and development. The department targeted three staff development priorities: communication, technical/professional development and effective people and program management. The emphasis was team-building within work units and improved client service. The Investment in Excellence Program was adopted as an important instrument towards those ends.

Management development programs resulted in 10 new admissions in the Middle Management Program. Candidates graduating from the various development programs included one from the Administrative Development Program, one from the Equity Development Program, one from the Senior Management Program and eight from the Middle Management Program.

Staff also participated in a number of Public Service Commission courses and workshops.

Occupational Health and Safety

Safety training increased during the year reflecting the department's efforts to ensure a safe working environment. Courses involved use and handling of all-terrain vehicles, wilderness survival, first aid, defensive driving and accident investigation courses. The safety network within the department was refined and there are now 14 safety representatives and 47 occupational health and safety committees. An employee safety award program was developed with the first awards to be presented in July, 1990.

The Third Annual Saskatchewan Wildlife Art Program, co-ordinated by Communications Services Branch, gave international exposure to homegrown talents like Neil Jones.

Internal Administration

The department undertook a number of planning and evaluation projects during the year aimed at improving the efficiency and effectiveness of department administration and policy. They included:

- review of, expansion, improvements and increased use of the Cash Register Information System (CRIS)
- in-depth field training on payroll procedures and the CRIS program
- full-time administration on all department attendance statements
- centralized grant administration
- introduction of an automated system to monitor and evaluate dental claims
- co-operation among branches and regions on an intensive staff work exchange program
- initiation of several new and improved policies and procedures
- replacement of most maintenance agreements with fee-for-service repair
- continued automation throughout the department
- establishment of Management Services North to improve northern administrative services and support
- Urban Parks funding review for Parks Branch
- new shoulder season visitation report
- audits on eight provincial parks, 30 district offices, four regional offices, 12 regional parks, six forest industries, three special forestry reviews, Echo Valley Conference Centre and the Saskatchewan Water Corporation Supply Board
- initiation of tender process for private firms to audit commercial leases in provincial parks in 1990/91
- assessment of the Saskatchewan Works Program in Ile a la Crosse, Buffalo Narrows and La Loche
- passage of seven Bills and seven Regulations, most notably The Grasslands National Park Act and The Resource Lands Regulations, 1989
- distribution of eight policy-procedure releases containing 38 new or revised department policies and procedures
- chairing the volunteer liability committee which investigated volunteer liability, workers' compensation for volunteers and volunteer use of government vehicles, equipment and facilities
- economic impact analysis for the Saskatchewan Centre of the Arts

Parks

The department is responsible for Saskatchewan's park lands, including 31 provincial parks, 21 protected areas, eight historic sites and 166 recreation sites. Support funding and consultation are provided to 101 regional park and four urban park authorities. In 1989, approximately five million people visited Saskatchewan's provincial parks, regional parks, and recreation sites.

Through the co-operation of commercial operators and the development and implementation of visitor programs, visitors are aided in enjoying the full recreational, interpretive and educational potential of the provincial park system year-round. In addition, the department protects and manages the significant resources found in Saskatchewan's park lands.

Park Management

Facility Planning

A five-year capital budget forecast was updated and compiled for all the department's parks and recreation related projects. The document guides immediate priorities as well as long-term public and private capital expenditures.

Planning and design for new and improved park facilities included the following:

- campground expansion at Duck Mountain Provincial Park and Anglin Lake Recreation Site
- parking, paths and planting at the visitor centres at Fort Carlton Provincial Park and at Goodwin House at Saskatchewan Landing Provincial Park
- beach stabilization, path and trail system at Good Spirit Lake Provincial Park
- boardwalk dune crossing at Minowukaw Beach in Candle Lake Provincial Park
- Kimball Lake sports area at Meadow Lake Provincial Park
- group camping area at Saskatchewan Landing Provincial Park
- new park entry at Duck Mountain Provincial Park
- overflow camping area enhancement at Moose Mountain Provincial Park
- marina and water system in Saskatchewan Landing Provincial Park
- redevelopment plan for the chalet at Moose Mountain Provincial Park
- visitor displays for Fort Carlton Provincial Park and the Goodwin House in Saskatchewan Landing Provincial Park
- irrigation of the beach area in Good Spirit Lake Provincial Park
- site development and utilities for the headquarters at the west entry of Meadow Lake Provincial Park
- golf course irrigation at Moose Mountain Provincial Park

Saskatchewan's provincial parks continued to be a source of recreation year-round for people of all ages.

Locations and conditions were determined for a variety of private commercial developments on park lands, among them a golf clubhouse and lodge at The Battlefords Provincial Park.

The department provided advice and assistance on several planning issues. Recommendations were provided for vegetation management in plantations in several southern parks. A document introducing an approach to architectural themes for provincial parks was prepared. Sessions introducing low-maintenance techniques were presented to park superintendents and staff. Technical development assistance was provided to several regional parks including the marina proposal for Palliser Regional Park.

Regional Park Management Specialist

In an effort to increase service to the public, other sectors of the department and government, and to improve the department's regional planning role, a new Park Management Specialist was appointed for Meadow Lake Region, while a temporary secondment from Operations became Saskatoon Region's Park Management Specialist.

Park Development

Facility Development

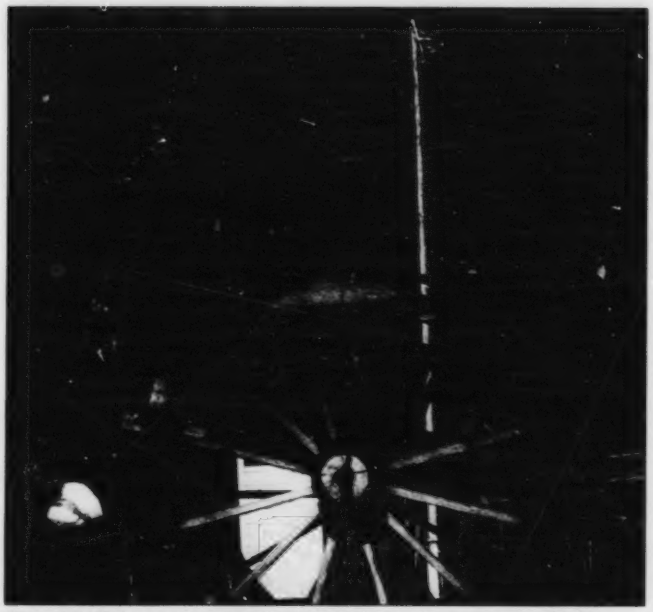
The department undertook a $4.3-million capital program during the year which included the following:

- Fort Carlton Provincial Park Visitor Centre
- redevelopment of the marina at Greenwater Lake Provincial Park
- Greenwater Lake Provincial Park maintenance building
- water system improvements at Lac La Ronge (English Bay), Moose Mountain and Katepwa Point Provincial Parks and Anglin Lake, Elbow Harbour and McBride Lake Recreation Sites
- Moose Mountain Provincial Park golf course irrigation system
- campsite upgrading at Cypress Hills, Lac La Ronge (Wadin Bay), Pike Lake and The Battlefords Provincial Parks and Anglin Lake Recreation Site
- electrification of campgrounds at Blackstrap, Good Spirit Lake and Cypress Hills Provincial Parks
- preservation of heritage resources at Stanley Mission and Cumberland House Provincial Historic Parks
- improvement of trails in Pike Lake, Duck Mountain and Lac La Ronge Provincial Parks and Regina Beach Recreation Site
- boat launch and docking facilities in Crooked Lake, Moose Mountain, Lac La Ronge (Nemeiben Lake) Provincial Parks and Chitek Lake, Etter's Beach, Davin Lake, Saginas Lake and Smallfish Lake Recreation Sites

- road resurfacing in Duck Mountain and Cypress Hills Provincial Parks
- day-use facility improvements at Moose Mountain, Candle Lake (Minowukaw Beach), Meadow Lake (Kimball Lake), and Saskatchewan Landing Provincial Parks and Etter's Beach Recreation Site
- new signage in Rowan's Ravine, Lac La Ronge and Blackstrap Provincial Parks

Commercial Leases

During the year, the department managed 102 commercial lease agreements for 116 different facilities leased to the private sector. Types of facilities included accommodation, golf courses, miniature golf, boat rentals, fast food services, stores and riding stables. Total fees for 1989/90 amounted to $375,000.



Over 28,000 people attended historic park programs during the 1989-90 season.

Private Investment Program

During the year, seven new or improved services or facilities were established in provincial parks and recreation sites, attracting more than $1.1 million in private capital investment, 15 person years of construction employment and 3.5 additional person years of operating employment. Proposals approved during the year for new or improved facilities to be constructed by 1990/91 included upgraded golf course/clubhouse and new accommodation and convention facilities in The Battlefords Provincial Park and a historical trail ride facility in Makwa Lake Provincial Park.

Management of Saskatchewan Park Lands'

The department prepared a public document, 'Management of Saskatchewan Park Lands' that provides an overview of Saskatchewan's park lands and how they are managed. The document, which should be of interest to the general public, interest groups and schools, outlines the park classification and zoning scheme, and highlights a number of management principles and policies that are followed in reviewing land use proposals for park lands. The document is intended to provide a basis for the development of new park regulations.

Park Management Strategies

As part of the program to co-ordinate park management, use and development, park management strategies are now in place for 10 provincial parks and recreation sites: Besant, Buffalo Pound, Danielson, Lac La Ronge, Last Mountain House, Meadow Lake, Moose Mountain, Nipawin, Pike Lake, and Saskatchewan Landing. Progress was made towards completing strategies and updates for Candle Lake, Cypress Hills, Douglas, Duck Mountain, Echo Valley, Fort Carlton, Good Spirit Lake, Meadow Lake, and The Battlefords Provincial Parks. The development of the park management strategies is a joint initiative between staff from Parks Branch and Operations Division.

Resource Management

A resource management unit was established in Parks Branch to co-ordinate a variety of natural resource issues now affecting parks. This includes the management of extractive resource uses, such as oil and gas, and mineral development, as well as the protection and enhancement of the renewable resource base. The preparation of vegetation management plans was a priority. A policy dealing with mineral development on park lands was prepared and approved by Cabinet.

Interprovincial Parks

Alberta and Saskatchewan culminated nearly two years of discussion by signing an agreement to establish interprovincial parks along their mutual border. At the same time the agreement was signed, Cypress Hills was designated the first interprovincial park. The establishment of a management committee for Cypress Hills was initiated.

Parks System Planning

Progress towards completion of a draft Parks System Plan continued with the preparation of an audio-visual presentation, displays and a public information document. Upon completion of review within government, the public will be consulted regarding the future direction of Saskatchewan's park lands system. Work progressed in conjunction with Saskatchewan Culture, Multiculturalism and Recreation on a Heritage Resources System Plan which deals with future direction for the province's historic parks and sites and heritage resources.

Athabasca Sand Dunes Park Land Reserve

The establishment of Saskatchewan's first Park Land Reserve in the Athabasca Sand Dunes was announced July 20, 1989. Public information meetings to discuss future boundaries, designation and management of this 1,940-square-kilometre park land reserve are planned for 1990.

Canadian Heritage Rivers Program

Saskatchewan continued to serve on the Canadian Heritage Rivers System Board. A background study was completed on the Churchill River and funding will be allocated in the next fiscal year to begin a study of potential Canadian Heritage Rivers System candidate rivers in Saskatchewan.

Grasslands National Park

The department continued its role as the primary provincial liaison with the Canadian Parks Service regarding the 1988 Grasslands National Park Agreement. Eighty-seven square kilometres of the core area of the park have been acquired to date, with options to purchase completed for another 48 square kilometres. Work continued on preparing legal descriptions to properly define, under legislation, water courses in the area.

Park Programs

Visitor Programs

Park visitor programs included conducting swimming lessons, lifeguarding at pools, conducting historic and nature programs, producing brochures, and preparing nature trails and visitor centre exhibits.

During 1989/90:

- 3,806 participated in swimming lessons
- 31,622 swimming pool admissions were sold
- 28,143 people, of which 22 per cent were students, attended historic park programs
- 58,362 people, of which 24 per cent were students, attended natural and outdoor recreation programs
- 72,425 people viewed visitor centre exhibits in recreation and natural environment parks

The nature trail at Pike Lake Provincial Park was upgraded and new trail signage completed. More than 100 brochures were reprinted and selected canoe route brochures were updated with the assistance of canoe clubs.

Exhibit designs were completed for visitor centres at Fort Carlton and Saskatchewan Landing Provincial Parks.

The department introduced the Park Outdoor Adventure Program in which private operators provided canoeing, fishing and bicycling packages for the general public. In conjunction with this program a detailed Voyageur Canoe Route program was undertaken.

Planning was initiated for Park Vacation Packages, a program to offer planned vacations including tours to and through provincial parks.

The department expanded the 'Artist in the Park' program with the introduction of theatrical productions at Moose Mountain Provincial Park by the Saskatchewan Drama and Community Drama Association.

Regional Parks

The department provided approximately $2.4 million in capital and maintenance funding assistance to the regional parks.

Amendments were made to the Regional Parks Act to provide the opportunity for other than municipal bodies to contribute financially to the 101 Regional Park Authorities, and the payment of fixed five-year maintenance payments.

The independently operated regional parks estimated that in excess of three million visitor days of recreation were provided by regional parks and they generated approximately $6 million in direct revenue for services provided.

Urban Parks

Responsibility for the urban park authorities, including Wascana Centre in Regina, Meewasin Valley in Saskatoon, Wakamow Valley in Moose Jaw, and Chinook Parkway in Swift Current was transferred from Saskatchewan Urban Affairs to Parks and Renewable Resources effective April 1, 1989.

During the year, approximately $3,931,000 in capital and maintenance funding was provided to the four urban parks. Amendments were made to the respective acts and agreements of the urban parks, and a comprehensive review of funding formulae for the urban parks was initiated.

Federal-Provincial Parks Council Annual Conference

The Federal Provincial Parks Council held its 28th annual conference in Regina from August 21 to 25, 1989. More than 60 delegates representing federal, provincial and territorial agencies participated in the conference which included a 2-day field tour of Grasslands National Park, Cypress Hills Provincial Park and Fort Walsh National Historic Park. The conference theme was 'Canadian Parks - Facing the Future Together.'

Park Operations

Echo Valley Conference Centre

Echo Valley Centre hosted 230 groups, ranging in size from 10 to 280 during the year. More than 900 students were enrolled in the Saskatchewan School of the Arts. During 1989/90, 28,139 bed-nights were occupied and 66,021 meals were served. The centre's sewage treatment facilities were further upgraded and the dining room underwent a major renovation. In addition, eight new washroom/shower room facilities were built and three of the Centre's lodges were refurnished.

Park Security

Park security was a major factor in ensuring that quality recreational experiences were available to park visitors.

During the year, park officers evicted 556 persons and gave 562 notices of violations compared to 359 evictions and 459 notices of violation in 1988/89. Convictions resulting from infractions of various sections of The Parks Act and regulations totalled 394 in 1989/90 compared to 255 last year.

Enforcement of The Alcohol Control Act by park officers was instrumental in providing a safer and more pleasant recreation experience by park visitors. In 1989/90, the second year of enforcement of the Act in provincial parks, there were 242 convictions for alcohol offenses compared to 288 last year.

Visitor Comment Card Program

In the summer of 1989 the department undertook a customer feedback program throughout the provincial parks system. 1367 comment cards were returned by park users. Most ratings were in the very good and good categories.

Communications

'Saskatchewan Parks - Your Place Under the Sun' Program

A three-year parks promotional campaign called 'Saskatchewan Parks -- Your Place Under the Sun' was developed and initiated. The campaign publicized recreational and educational opportunities in Saskatchewan parks.

Recreation Report

A weekly summer and winter recreation report was conducted to keep the public up to date on activities and events occurring in the provincial parks. Updates were provided on such topics as expected campsite use, fire hazard, fishing success, interpretive programs, ski hill conditions, and ice conditions.

Wildlife

Approximately 85 per cent of Saskatchewan adults make use of wildlife in some way to enhance their quality of life. They spend more than $107 million annually on recreational hunting and trapping and non-consumptive uses such as photography and bird watching.

Habitat Protection

Critical Wildlife Habitat Protection Act

The Critical Wildlife Habitat Protection Act (CWHPA) reserves, from sale and major harmful alteration, approximately 750,000 hectares of Crown land. No new lands were designated in 1989/90, but a draft policy for forest harvesting operations on CWHPA lands was completed. The department also made significant input into reviews for natural gas development in the Great Sand Hills.

Fish and Wildlife Development Fund (FWDF)

1989 was a banner year for the wildlife component of the FWDF with 4,533 hectares of excellent wildlife habitat being acquired bringing the total holdings to 41,100 hectares. Land acquisition efforts were again aimed at preserving white-tailed deer and grouse habitat in the parklands.

Approximately 300 tonnes of hay harvested off FWDF lands were used by the Landowner Assistance Program to assist in their big game damage amelioration efforts.

SUPER Habitat Program

The Saskatchewan Upland Protection and Enhancement Restoration (SUPER) Program's first full year in operation had positive results. Its objective is to ensure that upland wildlife habitat needs are met in the agricultural region. A co-ordinator was brought on staff by the Saskatchewan Wildlife Federation to promote its private stewardship programs. Several of these programs now fall under the umbrella of "Wildlife Tomorrow". ..... landowners are now enroled in the program, indicating positive public acceptance.

The steering committee of SUPER responded to proposals for expanding the use of the FWDF. As a result, new initiatives will contribute to the identifying, preserving and management of wildlife habitat throughout Saskatchewan.

Geographic Information System (GIS)

During the year, the department began a pilot project to test the compatibilities of the micro-computer-based GIS system to be located in the Regina Wildlife Branch office. Once the project has been completed, the system will be used to update geographically referenced habitat information.

A second GIS system will be located in the Prince Albert Wildlife Branch office. It will be used to integrate timber harvesting and wildlife habitat management.

The annual goose roundup and banding on Wascana Lake assisted Wildlife biologists in establishing bird populations.

Saskatchewan Wetland Conservation Corporation

The Saskatchewan Wetland Conservation Corporation (SWCC) was officially established on January 10, 1990 to co-ordinate North American Waterfowl Management Plan (NAWMP) activities in Saskatchewan. Headquartered in Regina and working out of Wildlife Branch offices, corporation staff were seconded from the department and Saskatchewan Environment and Public Safety for the initial period of operation.

Defining the SWCC's role and relationships with other NAWMP participating organizations characterized the corporation's first months. A 5-year SWCC operating plan was produced and several regional NAWMP offices, staffed by Ducks Unlimited Canada and SWCC, are expected to be open between September, 1990 and March, 1991.

Wildlife Depredation

Big Game Depredation

A large area in the northeast part of the province experienced severe winter conditions, triggering an extensive deer and elk intercept feeding program. 325 of the 505 claims handled resulted from winter damage, with major efforts conducted in the Greenwater Lake Provincial Park and Yorkton areas.

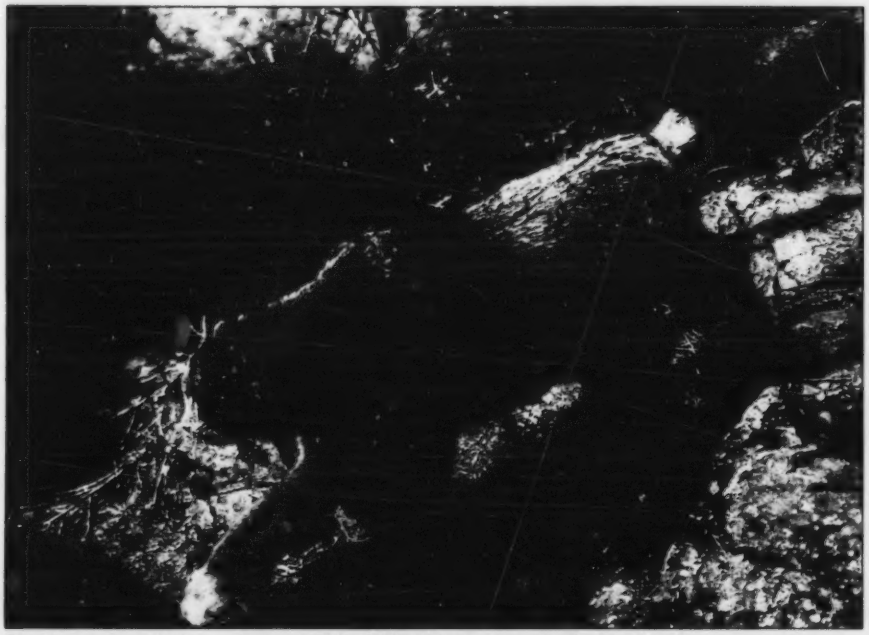
Summer and fall field crop depredation remains the major big game problem in terms of cost and damage loss. Drought conditions increased the problem, particularly with antelope in fall rye and lentils in the southwest. Black bear was not a significant problem, primarily because of the effective use of solar-powered electric fences developed by this program. Incidents of livestock predation by bear, however, continued to occur in a number of areas near Meadow Lake.

A new immobilizing drug (Telozol) for big game, particularly black bear, was obtained and training courses offered to conservation officers from several northern districts.

Moderate complaints about wolves harassing cattle in some northern community pastures were received. However, these complaints did not appear to be increasing and very few cattle were actually lost. The department received an increased number of complaints about coyotes whose high populations caused some increase in predation and harassment of livestock, particularly at calving time.

Waterfowl Depredation

A dry fall and early harvest conditions once again reduced waterfowl damage. However, programs to reduce waterfowl crop damage continued to be an important part of wetland habitat development programs. The department operated 2,039 hectares of permanent lure crop and 17 waterfowl feeding sta-



The Lynx population rebounded in 1989-90 as a result of effective fur management.

tions to control damage in major waterfowl staging areas.

Wild Fur Management

World fur demand and pelt prices have dropped to an all-time low. As a result, the interest in trapping has also dropped off, with only 6,500 fur licences sold compared to around 15,000 normally. Fur harvest values, already at a low of $1.8 million in 1988/89, further slipped to $1.3 million in 1989/90. Normal fur harvests bring in about $5 million annually. Demand for trapper education also declined with only one course conducted in the year.

Following two years of season closure, the lynx population showed improvement. As a result, a short, one-lynx-per-trapper season in December was opened. 396 lynx were taken, of which 15 per cent were kittens. Signs of lynx have been noted in locations where they have not been seen in recent years, further indicating the lynx population is improving.

Threatened and Endangered Species

During the year, the department and World Wildlife Fund made an important step in conservation of endangered wildlife and implementation of the Prairie Conservation Action Plan when the Saskatchewan Endangered Species Recovery Fund became operational. The $300,000-jointly-financed fund will support the conservation of threatened and endangered species in Saskatchewan.

The fund approved field surveys to identify critical nesting areas for the piping plover and to search for nest sites of the peregrine falcon. Operation Burrowing Owl expansion was approved to protect more burrowing owl habitat and continue monitoring the provincial population. A fourth project to establish the range and size of the rattlesnake and yellow-bellied racer populations in Saskatchewan will result in preparation of a recovery plan for these species.

The department also moved forward on its strategy of preparing recovery plans as an essential step in managing endangered species. As part of RENEW (Recovery of Nationally Endangered Wildlife), national recovery plans were completed for the ferruginous hawk and burrowing owl and a draft provincial plan for sage grouse was written.

The continuing effect of drought was evident in low numbers of nesting piping plover. Important nesting areas, such as Old Wives Lake and many smaller basins were dry, while others, like Chaplin and Big Quill Lakes were below the optimum water levels for this species. As a result, piping plover populations were about 30 per cent of their 1984 levels. Fortunately, the basic habitat remains and populations should recover when water conditions improve.

Wildlife Information and Education

Firearm Safety/Hunter Education

In 1989/90, 3,900 students graduated from Saskatchewan's Firearm Safety/Hunter Education Program and 120 new volunteer instructors were certified, compared to 4,271 and 135 respectively last year.

There were 17 firearm accidents during the year, including two accidents which were fatal. This represents a 35-per cent decrease over the previous year. Of the total, nine accidents were hunting-related.

Wildlife Education

Project WILD was enthusiastically embraced during the year due to higher profile promotion and greater interest in wildlife, habitat and environment. As well, Saskatchewan Education recommended the program as a resource for the new kindergarten to grade six curriculum. During the year, 961 teachers and youth groups leaders were trained through 44 workshops.

The Barren Ground Caribou Schools Program, applied in Athabascan area schools, was highlighted at both the Prince Albert Teachers Convention and the Northern Area Teachers Association Conference during the winter.

The Wild Fur Resources Schools Program was well received by more than 1,000 school children and adults through 42 presentations made by wildlife biologists and conservation officers. This presentation tells the story of Saskatchewan's historic role in the fur trade and the present value of the fur industry to our province.

National Wildlife Week activities included distribution of more than 1,000 education kits throughout the province. To prepare for the declaration of Provincial Wildlife Week in April, 1990, the department distributed 5,500 education kits to all Saskatchewan elementary schools and Project WILD-trained teachers.

Game Management and Licensing

Forest Road Management

Two hundred roads were closed in the Cub Hills and Candle Lake Game Preserves. Another 50 were closed in the La Ronge Region. This brings the total number of forest roads closed since the program was introduced in 1983 to 1,250. Closures reduce excessive hunting pressure on big game by controlling human access.

Hunter Education programs throughout the province graduated 3,900 responsible new hunters in 1989-90.

White-Tailed Deer

With good hunting conditions and higher hunter participation, the white-tailed deer harvest increased 11 per cent from 35,910 deer in 1988 to 39,998 in 1989. Provincial populations, although not as high as levels experienced during the late 1960s and early 1970s, appear to be stable or growing slowly. Antlerless harvest strategies remained in effect for Wildlife Management Zones (WMZs) 2, 6, and subzones in 11/14 and 31/32 to increase harvest on populations in chronic depredation areas.

Mule Deer

The 1989 mule deer harvest increased 25 per cent from that of 1988 because of a seven and 58 per cent rise in either-sex and antlerless licences, respectively. Provincial hunter success remained at traditional levels of 85 to 90 per cent for the rifle season, 65 to 75 per cent for muzzleloading rifle and 25 to 35 per cent for archery.

Moose

Overall 1989 licence sales declined three per cent from the previous year; however, harvest levels increased by 17 per cent to 4,014 animals. Provincial hunter success of 41 per cent was similar to the 1988 season. Populations appear to be stable, if not increasing, throughout most of the northern Commercial Forest.

Elk

The 1989 elk harvest increased from that of 1988 by 24 per cent, although regular season licence sales decreased by 10 per cent. Increased licence allocations for the Cypress Hills West Block (WMZ 7) and a new season in WMZ 58 resulted in special season sales 13 per cent over the 1988 level. Both the regular and special season hunter success rates rose by 12 per cent and 36 per cent respectively from the 1988 average.

The 1989 regular elk season was delayed one week to protect the social integrity of breeding elk and to remove hunter conflicts with the overlap of the special moose season. Despite the later season date and fewer elk hunters, more bulls were harvested than in the previous year.

Black Bear

The 1989 bear harvest of 1,080 bears was 43 per cent below 1988 and 51 per cent below the 1986 to 1988 average. The elimination of the free bear permit in 1988 and the second bear licence in 1989 were major contributors to this decline. Licence sales for residents, Canadian residents and non-residents of Canada fell a combined total of 26 per cent in 1989. Despite an overall reduction in total bear hunters and available licences, hunter success did not improve.

Antelope

Antelope populations continued to grow in 1989 in response to the mild winter and hunter harvest increased by 19 per cent over the previous year with a success rate of 80 to 90 per cent.

Barren-ground Caribou

As in past years, only residents of WMZ 76 were allowed to sport hunt barren-ground caribou. Hunters were permitted to purchase two either-sex licences. Only 38 sport licences and subsistence use licences were sold in 1989/90 largely because snow conditions limited caribou migration into Saskatchewan. The Caribou Management Board, with representatives from Saskatchewan, Manitoba and the Northwest Territories, continued to co-ordinate management of the Beverly and Kaminuriak herds.

Upland Game

Following the mild winter of 1988/89, there were excellent populations of Hungarian partridge, ring-necked pheasant and ruffed grouse. As a result, the late Hungarian partridge season continued in the Farmland and Grassland zones. Sharp-tailed grouse populations, however, remained 20 per cent below the long-term average.

Waterfowl

In 1989, total duck breeding populations in southern Saskatchewan fell to 3.9 million birds, the lowest since systematic surveys began in 1955. The prolonged drought and continued degradation of breeding habitat resulted in low duck productivity. As a result, the duck bag limit remained the same in 1989 with additional restrictions on pintails and canvasbacks of one bird daily and two in possession. The number of 1989 Migratory Bird Permits sold in the province declined to 22,916 from 23,258 in 1988. Total duck and mallard harvests of 104,132 and 74,782 respectively were similar to those recorded in 1988. From 1988 to 1989, pintail and canvasback harvests declined by 15 and 88 per cent respectively. With the exception of white-fronted geese, goose populations remained at excellent levels and the total 1989 Saskatchewan goose harvest increased by 27 per cent over the previous year.

Wildlife Enforcement

This year, conservation officers contacted 28,944 hunters and trappers in the field and there were 1,091 wildlife-related convictions. Of the convictions, 58 were related to illegal night hunting and nine for trafficking in wildlife.

Trafficking in captive wildlife trophy antlers and heads as well as organs continued to be a major issue. During the year, the Provincial Enforcement Unit continued to develop strategies to reduce trafficking undertaken by "big business" operations. Increasingly, magistrates are assessing larger and larger fines to individuals involved in this activity. Again this year, record fines were levied in four cases.

Forestry

Saskatchewan's forests cover 35.5 million hectares or just over half of the province's total area. Most forested land is located in the northern part of the province and is publicly owned.

On provincial Crown lands, the forest is divided into two areas: the Commercial Forest Zone in the south and the Northern Reconnaissance Zone. Department activities are concentrated in the Commercial Forest Zone.

Forest Production and Control

Forest Industry Production and Employment

Direct forest industry employment, including logging, mill and office positions, totalled 2,232 person-years during 1989/90. Indirect employment, such as retail salespeople, suppliers of intermediate goods to the forest sector and government employees, totalled 3,549 person-years.

Harvesting operations, including timber salvage, yielded 3.33 million cubic metres during the year. In addition, 10.1 million cubic metres were lost to forest fires.

The value of forest products in Saskatchewan, based on selling prices, totalled more than $366 million.

Timber Supply Evaluation

Analyses of softwood and hardwood timber supplies for the eastern third of the commercial forest were completed in support of the effort to attract replacement forest industries to the Hudson Bay and Creighton regions.

Timber supply analyses were conducted for two areas in the agricultural zone in support of various private sector initiatives.

A micro-computer-based Geographic Information System was incorporated into timber supply analysis procedures, giving much more complete information. With the new technology, the volume of harvestable timber in a given region can be determined, as well as its location on a map.

Timber Control

Nine major forest industry operating plans and thirty supplementary harvesting proposals were analyzed and approved. Two 5-year operating plans, required as part of Forest Management Licence Agreements (FMLAs) were also studied and accepted. Progress was made in identifying 20-year resource supply areas for small independent operators, operating within the Weyerhaeuser, L & M Wood products and Norsask FMLA areas.

The Geographical Information System in Prince Albert will integrate timber harvesting and wildlife habitat

With the co-operation of the forest industry, the department directed the salvage of merchantable timber from spruce budworm-damaged and firekilled forest stands. The department continued its activities in support of road closures for wildlife population management in the Commercial Forest.

Two scaling courses were presented during the year for both private sector and government employees. The department initiated a volume recovery study to examine the relationships among standing volume, harvested volume and end product recovery with one producer. Also, the fencepost recovery study was continued.

Demands on the wood flow and timber permit information retrieval systems were significant, with completion of 31 requested retrieval projects. In 1989/90, there were 4,225 field permits for own-use wood products and 1,339 timber permits for commercial operations issued province-wide.

During the year, the department evaluated two environmental impact statements and developed three provincial policies on the use of Saskatchewan's forest resources.

Regional Forest Operations

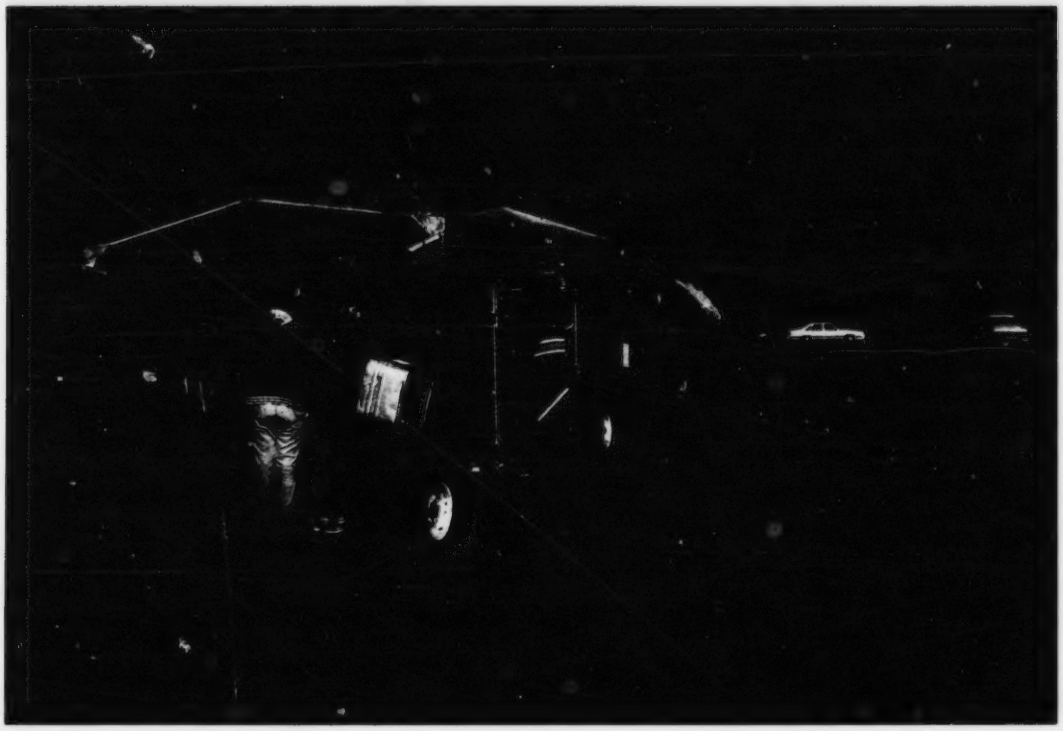
In the Meadow Lake Region, efforts continued toward establishment of a long-term resource plan for third parties on the Norsask Forest Products Forest Management Licence Agreement (FMLA). A plan to salvage jack pine sawtimber resulting from blowdown was developed and implemented in Meadow Lake Provincial Park.

Following major fires in Prince Albert Region in recent years, burnt over areas in the Elan, Bronson, Henderson and North Cabin fires were surveyed and salvage plans implemented, encouraging small operators to salvage as much timber as possible. The salvage material went to local sawmill operators and various post and rail operators.

The department developed a firebreak plan for the northern portion of the Nisbet Provincial Forest and began its implementation during the year. More than 80 kilometres of firebreaks from 200 to 800 metres wide will be cleared over the next ten years. Over 5,000 hardwood seedlings were planted in the firebreaks in the spring of 1990.

La Ronge regional forestry staff issued many work permits for mineral exploration activities throughout the Region. Staff were also involved in the review of environmental impact statements for the proposed Contact Lake Mine in La Ronge Provincial Park and the SaskPower transmission line from Island Falls to Points North.

In Swift Current Region, a 10-year harvesting plan for Cypress Hills Provincial Park was developed to ensure a controlled harvest and timely reforestation.



The provincial tree nurseries produced more than 12 million seedlings in 1989-90.

Forest Enhancement and Protection

Canada/Saskatchewan Forest Resource Development Agreement (FRDA)

In the FRDA payout period ending December 3, 1990, more than $2.3 million was expended in federal-provincial cost-shared and provincial direct projects.

Nearly $2.1 million was directed toward planting 6.8 million seedlings and site preparation of 1,272 hectares.

Other projects were funded in the fire weather program, the Geographic Information System and the Public Information Program.

As well, the federal government delivered directly approximately $500,000 towards FRDA in 1989/90. Of the $28 million FRDA, approximately $27.4 million (97.7%) was delivered.

Silviculture Programs

The department maintained its schedule to co-ordinate the planting of 50 million seedlings between 1988 and 1993. The forest industry contributed significantly toward this objective, as it assumed new Forest Management Licence Agreement (FMLA) obligations.

The two provincial nurseries produced more than 12 million seedlings, with distribution primarily to provincial government and forest industry reforestation projects.

During the year, approximately 4.8 million seedlings were planted under nine contracts and 6.5 million seedlings were planted by the forest industry. Trees were also distributed to schools, youth groups, farm woodlots, parks and for promotional purposes.

In addition to tree planting, more than 1,040 hectares of denuded forest land were reforested naturally through use of various scarification methods and more than 1,898 hectares of young forests were tended.

Insect and Disease Monitoring and Control

Harvesting programs continued to reduce the impact of spruce budworm infestations.

Defoliation of aspen by the forest tent caterpillar continued over much of the Commercial Forest and northern agricultural zone.

The Dutch Elm Disease (DED) surveillance program continued in the south of the province. Most major urban centres continued to conduct surveys of their elm populations. No incidence of DED was found.

Forest Inventory

During the year, the forest inventory program continued development of the Forest Resource Data Base on Geographic Information System technology. Existing data was converted into new formats and new re-inventory information was added for parts of the province.

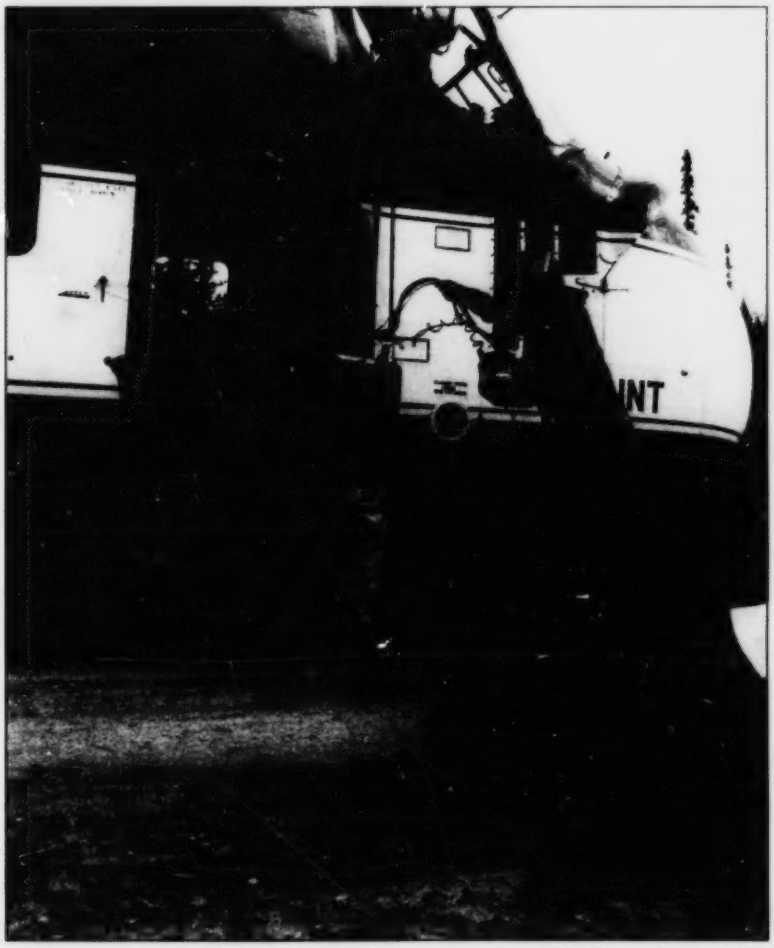
The forest inventory process was reviewed and the department developed a fifteen-year Inventory Plan for the province. Plans were established to continue a regional level Provincial Forest Inventory, complete with annual updating capacity and varying regional re-inventory time frames, within the 15-year plan.

New micro-computer technology was incorporated into the program, allowing faster and more cost-effective information processing.

Forest Fire Prevention and Suppression

The total number of forest fires in the 1989 season nearly equalled the all-time record of 1,064 fires, set the previous year. Saskatchewan crews extinguished 1,020 fires, 43 per cent over the previous 10-year average of 711 fires. In terms of suppression costs, however, 1989 set its own records: nearly $42 million was spent fighting forest fires, making it the most expensive fire year ever.

Nearly half a million hectares were burned: close to 212,000 hectares in the Primary Protection Area and just over 250,000 hectares in the Secondary Protection Area. July was the worst month with 463 fires burning just over 375,000 hectares of forest. There were 548 fires in the Commercial Forest which burned about 157,000 hectares of merchantable timber.



Weather conditions on May 9 and 10 resulted in seven large fires, which consumed some 51,000 hectares of forest. The North Cabin Fire, the best known of these fires because of its proximity to a major centre, burned 17,000 hectares of the Nisbet Forest.

The Air Attack Team, comprised of six Grumman Trackers, three PB-Y5A Cansos and four CL215 Canadair Water Bombers, dropped approximately 1.45 million litres of retardant, 14.4 million litres of foam and 10.8 million litres of water during the 1989 fire season.

The department Air Attack Team, directly supported by privately-owned long-term contracted aircraft, consisted of three S55T Sikorsky Helicopters, one 206 Bell helicopter and two S58 Sikorsky helicopters. Additional Air Attack support was provided by Alberta, Manitoba and the Northwest Territories.

The majority of the helicopter hours were used in conjunction with Regional Initial Attack crews. Otherwise, helicopters were used primarily to transport fire fighters and to bucket water into "hot spots", as well as for loaded aerial smoke patrols. Helicopters dropped 15.1 million litres of water onto forest fires in the 1989 season.

The department operated 27 remote automated weather stations and used information from an additional 14 stations operated by Atmospheric Environment Services. Forecasts were issued to those areas requiring up-to-the-minute weather information for pre-suppression and suppression efforts.

In addition, a prototype model of the dispatch assistant computer program was installed at the Provincial Fire Management Centre in Prince Albert. The Intelligent Fire Management Information System (IFMIS), developed by Forestry Canada in Edmonton, is designed to support fire management decision making.

A total of 744 people received training related to suppression of forest fires. Courses involved all levels of fire fighting and fire management.

Smokey Bear continued to make public appearances and visit schools in department efforts to make the public more aware of forest fire prevention. The 1989 program of classroom visits by Smokey with conservation officers involved more than 13,000 students. Smokey also met with nearly 9,000 members of various youth groups and 20,000 of the general public at functions throughout the province.

1989-90 was the most expensive forest fire fighting year ever with nearly $42 million in suppression costs.

Fisheries

Sixty-eight species of fish are found in more than 94,000 lakes, streams, rivers and reservoirs. Use of the 21 economically important fish species supports significant components of the provincial recreation, tourism and renewable resource industries.

About 250,000 anglers expend about two million days fishing in Saskatchewan each year. Although most residents tend to fish close at home, angling is a major tourist attraction serviced by approximately 300 outfitters. Sportfishing now generates an estimated $223 million in annual economic activity for the province.

Although small by ocean fisheries standards, the Saskatchewan commercial fishery supports 2,000 jobs. The annual harvest approaches three million kilograms and is worth about five million dollars to the primary producers. The third major use of fish in Saskatchewan is for domestic purposes. Approximately two million kilograms of fish are harvested by Treaty Indians and northern families for food purposes.

Fish Enhancement and Management

Enhancement

Operating from a special fund created by a 30 per cent impost on angling licences, the department initiated 18 new fisheries projects during the year. They included:

- development of a walleye rearing pond at Nickle Reservoir
- installation of aeration systems at Melville Reservoir, Waldheim Pond and Wilson Lake
- construction of a fishway at Siisiip Lake
- reclamation of Dorothy, McRobbie and Olson Lakes
- trout pond development in Buffalo Pound Provincial Park, Eagle Creek and Waldsea Regional Parks, and at Luck Lake and Luseland
- habitat improvements in Battle, Fairwell, Jackfish and Lost Echo Creeks and Wapella Reservoir

Fifteen projects, initiated before 1989, underwent further developments, including:

- renovations on Jackfish, Meadow Lakes, Kenosee and Glaslyn rearing ponds
- habitat improvements on Bone, White Gull, Richardson and Tobacco Creeks and Swan River
- cutthroat trout stocking in Little Raspberry and Shirley Lakes
- landscaping of Candle Pond
- installation of additional spawning reefs in Morin and East Trout Lakes and Lac Eauclaire

The Candle Pond Facility officially opened in July 1989, giving disabled anglers increased access to the sport.

The department operated and maintained 30 projects, previously developed. In addition, 20 feasibility investigations were conducted in preparation for future fish enhancement projects.

Since the program was initiated in 1984, a total of 85 fish enhancement projects have been developed. Volunteer organizations assisted in 47 of these projects.

Stock from the Fort Qu'Appelle Fish Culture Station went to 227 waters in 1989-90.

Fish Stocking

The department's Fish Culture Station raised 35.9 million fish of eight species. These were stocked in 227 waters. The pamphlet entitled "1989 Stocked Waters" provides details of the fish stocking program. In addition, the hatchery provides a popular tourist visitor facility handling upwards of 30,000 visitors annually.

Regional Fisheries Management

Department staff examined 141 waters during the summer to check fish population status and update fisheries management plans. The results were summarized in the pamphlet "Fish Facts 1989". During the winter, an additional 74 waters were tested for dissolved oxygen conditions to determine future management needs, suitability for fisheries development, and forest cutting reserves.

Construction on a new nursery was completed and will be officially opened in June, 1990. The nursery is located along the north bank of the Qu'Appelle River approximately seven kilometres west of Pasqua Lake. Walleye fingerlings from the nursery will be stocked into the Qu'Appelle Lakes as mitigation for lost spawning areas.

The nursery is the first intensive walleye production facility in Saskatchewan. Construction costs were shared under the Canada-Saskatchewan Subsidiary Agreement on the Qu'Appelle Valley. This agreement was initiated to increase the conveyance capacity of the Qu'Appelle River System and to improve the management of water in the Qu'Appelle Valley.

Effort was also devoted to evaluating the potential impacts of 110 new outfitting proposals, 102 commercial fishing requests and 150 fish habitat related issues.

Fish Habitat Protection

The Fish Habitat Protection Program prevents potentially harmful consequences of various development proposals on fish and fish habitat.

During the year, Fisheries Branch reviewed 16 environmental impact statements, 40 major development project proposals and 72 miscellaneous development proposals.

Fisheries Research

Completion of a 2-year Arctic grayling population study in northern Saskatchewan resulted in several recommendations pertaining to future angling activity. Changes included reducing limits from five to two fish per day. Only one fish will be allowed to exceed 30 centimetres, and mandatory use of barbless hooks for grayling fishing are proposed.

A northern lake monitoring program, initiated in 1989, assessed fish populations in Pelican, Mirond, Jan, Hanson and Limestone Lakes.

The department continued to assess walleye spawning habitat to determine improvement criteria for increasing natural reproduction and recruitment. Improving the reproductive potential of natural populations may be more productive and cost effective as compared to the present stocking process. Studies on the effects of stocking walleye fry versus fingerling, the effects of perch predation on stocked walleye and the contribution of the stocking effort towards adult populations were also carried out.

The first phase of a 2-year biological and fisheries survey on Lac la Ronge was completed. The study will improve the understanding of the ecology and harvest of fish so that the present management strategy can be assessed. Study methods included test-netting, taking plankton samples and mapping the depths of the lake.

Sport Fisheries

Angling

Angling continued to provide significant recreational opportunities during the year. Recreational use of the provincial fishery resulted in the sale of 169,500 angling licences. This pattern of angling participation has remained relatively stable over the last three years.

Management Plans

Four new management programs were implemented in 1989 and all received positive response from anglers:

- The first Free Fishing Day in Canada, July 8, was introduced to increase public awareness of the diversity of angling opportunities province-wide and to promote the value and benefits of angling to local communities.
- An "Improved Angling Quality" waters program was developed in co-operation with the Saskatchewan Outfitters Association to promote and sustain fishing quality on selected waters. Fourteen remote lakes were designated as "Improved Angling Quality" waters.
- A fishing derby permit was instituted so that organizers of such events would provide information for management purposes.
- The use of sturgeon by anglers was researched by providing complimentary diaries for anglers to provide fishing statistics on this unique fish.

In addition, three new fishing closures were instituted to protect spawning fish:

- Twin Falls and part of Mountain Lake has a spring closure.
- Rattler Bay of Otter Lake, including a portion of Stewart River, have extended spring closures.
- East Trout Lake has a fall closure for lake trout only.

Commercial Fishery

Commercial Fishery Harvest

A total of 2,014 commercial fishing licences were issued this year. Fishing produced a harvest of 3.2 million kilograms worth $3.2 million in initial payments to fishermen. Most production originates in northern Saskatchewan where commercial fishing represents an important source of income. An additional $1.2 million was paid by the Freshwater Fish Marketing Corporation (FFMC) as a final payment to fishermen who delivered fish during the 1988/89 fiscal year.

In 1989/90, the FFMC implemented a program to reduce whitefish inventory levels thereby bringing production in line with market demand. The FFMC provided a bonus to fishermen who voluntarily reduced their whitefish catch. Lakes affected by the reduction in whitefish included Reindeer Lake, Wollaston Lake and Lac la Ronge.

Conservation Officers contacted 47,010 anglers in 1989-90.

Fishing Assistance

The Commercial Fishing Production Incentive Program was continued in 1989. One part helps ease the high cost of transporting commercially caught fish from remote areas to market. In addition, price support is offered to encourage the utilization of mullet. In 1989, approximately $350,000 was allotted under this program.

Fish Marketing

The majority of fish produced in Saskatchewan are marketed by the FFMC. Much of the harvest is exported to the United States and Europe where it commands premium prices. Included in total commercial fish production are fish sold by commercial fishermen within Saskatchewan to clients other than FFMC. Approximately 360,000 kilograms of fish were sold in this manner.

Seventy-four commercial bait fishermen harvested 12,380 kilograms of bait fish, valued at $66,778.

Twenty-four brine shrimp licences were issued resulting in total production of 43,170 kilograms.

Fur farm fishing operations took 35,976 kilograms of fish to feed 1,100 fur bearing animals.

Aquaculture

Aquaculture or fish farming continued to emerge as a new industry in Saskatchewan. Despite drought conditions in the southern half of the province, 2,148 fish farming licences were issued of which 129 were commercial and 2,019 were private.

A total of 400,000 rainbow trout fingerlings were imported for resale by 12 brokers. 1.3 million rainbow trout eggs were imported for hatching and resale as fingerlings. Smaller quantities of Arctic charr, Atlantic salmon and cutthroat trout were also imported.

A total of 833,000 rainbow trout fingerlings were stocked. Commercial fish farmers grew an estimated 45,000 kilograms of fish.

Fisheries Enforcement

In 1989/90, a total of 47,010 anglers were contacted in the field by conservation officers. 942 sport fisheries-related convictions were made.

In an effort to alleviate illegal use of small mesh gill nets in the northern commercial fishery, conservation officers checked 6,615 commercial nets and 839 domestic nets resulting in the seizure of 83 illegal small mesh nets.

Resource Lands

There are approximately 375,000 square kilometres of Crown resource lands amounting to approximately 53 per cent of the provincial land base. The department administers the use, disposition and management of these lands in consultation with municipalities, industry, associations, interest groups, individuals and government departments and agencies. In conjunction with its land administration, the department also administers The Outfitter and Guide Regulations and The Wild Rice Regulations and is involved in reviewing environmental studies, Treaty land entitlement selections, and various municipal and provincial land use studies.

Land Management Planning

The department initiated the transfer of all Crown land within the corporate boundaries of northern municipalities. Nearly 150 land transfers were carried out. A total of 413 hectares of Crown land were transferred to the hamlet of Timber Bay alone as part of this initiative and work proceeded to finalize land transfers to all other northern communities.

The department also followed through on the provincial government's agreement to transfer title of 50,000 acres of Crown land to the Cumberland House Development Corporation to assist local residents improve their social, economic and employment prospects. The first parcel of land was identified for transfer and the department provided advice on a continuing basis in the selection of additional lands to meet the government obligation.

Among other department planning initiatives, a Crown land development plan was undertaken for the Jan Lake Recreational Subdivision. Guidelines for the sale, lease or permit of Crown land were initiated, along with the adoption of a new policy for Special Management Areas.

The department also assisted in identifying and developing new subdivision proposals involving more than 200 cottage lots. Some 180 reviews were conducted on a variety of proposals, including environmental impact assessments, Indian land claims, transmission lines, pulp mills, oil and gas wells, seismic lines and developments affecting rural municipalities. In addition, 62 trespass situations were resolved from a total of 108 investigations.

Land Disposition and Tenure

Land uses requiring tenure rights included recreational and permanent residential structures, industrial and institutional facilities, livestock grazing, cultivation, traditional resource use (ie., trapping), wild rice cultivation, commercial services and resorts, mineral exploration camps, quarry and mining operations, and oil and gas production sites.

Clearwater River area.

During the year, the department issued 871 outfitter and guide licences, reviewed 380 lease applications and renewals resulting in the issue of 71 new leases, renewed 354 existing leases, registered 227 lease assignments, issued 20 new and renewed two existing mineral (oil and gas) leases, issued 33 new quarry leases, facilitated 17 land grants and six transfers, issued 21 agricultural permits, 523 wild rice permits and 1,090 miscellaneous use permits, and prepared 45 Orders in Council.

The Crown Resource Land Registry maintained 8,862 active files.

Under the private investment program, a rural residential subdivision development opportunity at Potato Lake was awarded and development will proceed over a 4-year period. In addition, more than 100 commercial land lease transactions and development proposals were processed and resulted in eight new leases finalized, five leases pending and 22 leases approved in principle.

The Crown Land Sales Program continued to give individuals the opportunity to purchase certain types of leasehold properties. During the year, Crown land sales generated $175,889. Revenue from rental of Crown resource lands amounted to $1,591,241. An additional $681,627 was generated from cottage lot rentals and from oil and gas surface leases in provincial parks.

Land Use Inspections

During the year, department staff inspected 344 recreational leases, 355 surface leases, 192 oil sites and 156 exploration work areas. Checks were also made of 494 outfitting camps and 284 building sites, and 164 miscellaneous use permit areas were checked. In addition, 513 water use inspections were carried out.

Receipts	1988/89	1989/90
Fisheries	$2,752,499	$2,905,933
Wildlife	4,425,390	4,589,280
Lands	214,151	173,253
Forestry	4,029,233	4,733,268
Micellaneous	2,224,956	2,764,216
Lottery Licences	3,088,338	-----
Total	**16,734,567**	**15,165,950**

Disbursements		
Ordinary	$99.509,378	$111,835,181
Capital	1,402,000	1,698,165
Total	**100,911,378**	**113,533,346**

Table No. 1 Forest Industry Employment April 1/89 - March 31/90

Where Employed	Person Years
Direct Employment	
Office	173
Plant or Mill	1,420
Woodlands	
- Company	111
- Contract	529
Total Direct	**2,232**
Indirect Employment	3,549
Total Employment	**5,781**

Table No. 2 Value of Primary Forest

Product	Volume Used m^3	Value 1989/90 $\$m^3$	Total Value 1988/89 $(000)	Total Value 1989/90 $(000)
Sawtimber	1,150,937	44	46,076	50,753
Posts	102,666	194	17,141	19,917
Poles	39,660	36	220	1,428
Rails	13,796	78	1,005	1,076
Ties	6,400	237	394	1,517
Piling and Round Timber	987	48	232	47
Fuelwood	77,812	16	1,285	1,245
Waferboard, Plywood and Pulp	1,934,484	150	322,330	290,173
Total	**3,326,742**		**388,684**	**366,156**

Table No. 3 Forest Revenue (from Provincial Forests and Provincial Lands) from April 1/89 to March 31/90

Dues, Fees and Royalties			
Pulpwood:			
	Weyerhaeuser	807,842.36	
	Meadow Lake Sawmill/NorSask	525,968.74	
	Simpson Timber	17,912.25	
	Other Operators	9,518.64	1,361,241.99
Sawtimber:			
	L & M Wood Products	94,053.48	
	Meadow Lake Sawmill/NorSask 32,178.90		
	Sask. Forest Products	1,498,307.00	
	Simpson Timber	1,252,582.00	
	Weyerhaeuser	------	
	Other Operators	95,562.43	2,972,683.81
Other products:			
	Lehner Wood Preservers	23,976.59	
	MacMillan Bloedel	170,690.17	
	Other Operators	158,420.10	353,086.86
Total Dues, Fees and Royalties			**4,687,012.66**
	Licences and Permits[1]	9,969.26	
	Penalties and Interests[2]	19,482.00	
	Sales and Services[3]	6,178.78	
	Other Charges and Levies[4]	10,615.08	186,965.21
Grand Total for Forests			**4,733,268.78**

[1]Includes sawmill licences, Forest Management Licence, grazing, timber, hay, wild rice, peat and sphagnum moss permits.
[2]Includes waste of merchantable timber, overcut timber dues, timber seizure sales, overcut hay dues, hay seizure sales.
[3]Includes timber sales and other services.
[4]Includes fire prevention levy and ground rent charges.

Table No. 4 Provincial Forest Fire Summary*

Cause	No. of Fires	Total % of Fires	Area Burned(ha)	% of Total Area Burned
Recreation	127	15.6	13,950.5	6.6
Resident	149	18.3	35,487.5	16.7
Forest Industry	7	0.9	16.2	---
Railroads	4	0.5	1.2	---
Other Industry	7	0.9	134.3	---
Incendiary	81	9.9	2,598.2	1.2
Miscellaneous	46	5.6	255.2	---
Lightning	337	41.3	141,892.6	67.0
Unknown	57	7.0	17,558.9	8.3
Total	**815**	**100.0**	**211,894.6**	**99.8**

*Primary Protection Zone only

Table No. 5 Tree Planting and Scarification 1989/90

SPRR Forestry Branch

Location		# Trees	ha
	Allen Lake	1,339,900	655
	Porcupine	685,000	389
	Kinakin	390,000	215
	Cracking River	1,101,000	787
	Gieze South	350,600	261
	Gieze North	350,500	252
	Divide	75,000	44
	Hawryluk Creek	421,000	299
	Cypress	97,083	56
Total Government		**4,810,083**	**2,958**
Industry	Weyerhaeuser	2,936,136	1,291
	NorSask	1,836,132	918
	Simpson Timber	1,110,600	476
	SFPC	700,780	411
Total Industry		**6,583,648**	**3,096**
Total Plantings		**11,393,731**	**6,054**
Total Scarification (ha)			**1,040**
Total Area Treated (ha)			**7,094**
Tended (ha)			**1,898**

Table No. 6 Estimated Depletion of Standing Timber by Region

Region	By Use m^3	By Fire m^3 (Primary Protection Zone)
Hudson Bay	1,241,527	188,582
Prince Albert	1,582,148	2,952,494
Meadow Lake	439,161	132,576
La Ronge	48,797	5,606,271
Melville	1,987	---
Saskatoon	656	---
Regina	375	---
Swift Current	12,091	---
Total	**3,326,742**	**8,879,923**

Table No. 7 Natural Environment, Recreation And Wilderness Provincial Parks: Historical Number Of Visitors* (Victoria Day To Labour Day Weekend), 1980-1989

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	% Change
Natural Environment											
Cypress Hills	193,737	233,733	224,907	220,206	187,758	148,371	182,034	151,989	137,653	178,362	29.6
Douglas	56,055	70,875	71,718	63,651	67,593	64,365	45,039	30,522	38,562	44,874	16.4
Duck Mountain	267,594	218,094	255,366	303,816	243,996	242,643	235,281	247,116	261,291	265,515	1.6
Good Spirit Lake	96,372	94,704	101,289	94,728	110,013	105,432	115,770	105,450	137,406	155,946	13.5
Greenwater Lake	112,479	106,200	106,500	106,800	104,172	108,306	120,246	120,753	145,272	127,983	-11.9
Lac La Ronge	78,744 [a]	n/a	15,180 [f]	57,537 [c]	132,804 [c]	28,346	92,400 [#]	96,921	94,461	184,590	95.4
Makwa Lake	281,754	312,741	365,847	259,365	305,418	110,175 [f]	103,671	112,761	97,431	109,443	12.3
Meadow Lake	226,578	331,098	236,205 [a]	26,605	237,462	249,669	239,115	266,640	260,232	306,954	18.0
Moose Mountain	482,571	450,273	431,043	392,571	440,313	418,800	516,966	534,171	596,766	595,203	-0.3
Nipawin	39,486	104,805 [b]	52,686 [a]	7,131	37,494	41,910	26,355	21,567	39,891	66,828	67.5
Sask Landing	158,979	171,429	135,126	159,759	153,141	162,456	172,320	181,533	238,023	154,545	-35.1
Sub-Total	**1,994,349**	**2,093,952**	**1,995,867**	**1,992,169**	**2,020,164**	**1,780,473**	**1,849,197**	**1,869,423**	**2,046,988**	**2,190,243**	**7.0**
Recreation											
The Battlefords	157,023	158,571	174,492	195,843	171,447	233,985	198,594	166,737	151,626	179,898	18.6
Blackstrap	31,578	55,626	53,673	49,224	47,496	43,707	43,206	59,121	82,392	55,656	-32.4
Buffalo Pound	115,161	133,419	122,919	99,417	111,855	87,576	97,200	83,109	103,998	76,365	-26.6
Candle Lake	393,378	656,814	712,608	413,007	217,224 [d]	47,774	170,091	328,500	125,766	198,123	57.5
Crooked Lake	31,812	34,920	47,877	40,086	72,486	41,463	36,138	33,651	42,213	32,604	-22.8
Danielson	91,449	107,556	119,076	98,697	108,144	90,987	88,968	78,351	95,727	71,079	-25.7
Echo Valley	241,632	279,486	158,820	163,506	200,877	170,031	70,770	144,354	177,885	178,278	0.2
Katepwa Point	22,071	19,908	44,148	33,693	41,844	29,913	26,940	48,816	35,352	41,685	17.9
Pike Lake	133,539	141,315	126,717	115,326	96,573	99,873	145,308	111,474	147,492	159,438	8.1
Rowan's Ravine	76,008	81,585	120,186	80,025	79,671	67,893	40,860	54,369	58,095	97,644	68.1
Sub-Total	**1,293,651**	**1,669,200**	**1,680,516**	**1,288,824**	**1,147,617**	**1,013,202**	**918,075**	**1,108,482**	**1,020,546**	**1,090,770**	**6.9**
Wilderness											
Clearwater	-	-	-	-	-	-	-	339	672	4,014	497.3
Total (22)	**3,288,000**	**3,763,152**	**3,676,383**	**3,280,993**	**3,167,781**	**2,793,675**	**2,767,272**	**2,978,244**	**3,068,206**	**3,285,027**	**7.1**

Footnotes:

*Visitors entering Provincial Parks have been derived from the monthly traffic counter figures multiplied by a factor of 3 persons per vehicle (1982 Park Visitor Survey)

a - 1 less traffic counter than previous year

b - 1 more traffic counter than previous year

c - 2 more traffic counters than previous year

d - 2 less traffic counters than previous year

f - 3 less traffic counters than previous year

Exclusive of Missinipe Campground, which has been removed from provincial park boundaries. Prior to 1986, Missinipe Campground visitation was included as part of Lac La Ronge Provincial Park.

Source: Traffic Counter Record Sheets

Table No. 8 Big Game Harvest & Recreation Days by Species: 1989

	Harvest	Rec Days
White-tailed Deer	39,998	187,278
Moose	4,954	54,052
Elk	965	17,060
Mule Deer	9,359	24,692
Antelope	4,407	10,883
Woodland Caribou*	0	0
Black Bear	806	14,340
Barren-ground Caribou	0	0

*Season closed in 1989

Table No. 9 Game Bird Harvest & Recreation Days by Species: 1989

	Harvest	Rec Days
Ducks	104,132	**Not Available**
Geese	155,958	**for 89/90 season**
Sandhill Crane	2,318	
Sharp-tailed Grouse	48,502	
Hungarian Partridge	65,044	
Ruffed Grouse	70,000	
Spruce Grouse	10,297	
Pheasant	0,378	

Table No. 10 1989/90 Fish and Wildlife Development Fund*

	Total
Opening Fund Balance	$2,710,480
Revenues	2,631,709
Expenditures	2,428,441
Excess of Revenues over Expenditures	203,268
Ending Fund Balance	**2,913,748**

*These are unaudited figures - Accrual Basis
Previous end balances were also unaudited figures and were on a cash basis.

Table No. 11 Hunting and Trapping Licence Sales and Revenues

	Number	Revenue
Wildlife Habitat Certificate	70,710	$656,484
Game Bird		
Saskatchewan Resident Game Bird	29,479	269,897
Canadian Resident Game Bird	1,600	82,686
Non-resident Game Bird	3,284	355,826
Total Game Bird	**34,363**	**708,409**
Big Game		
1st Saskatchewan Resident Barren-ground Caribou	17	174
2nd Saskatchewan Resident Barren-ground Caribou	12	116
1st Saskatchewan Resident Bear	2,903	42,660
2nd Saskatchewan Resident Bear	0	663
1st Canadian Resident Bear	70	5,097
2nd Canadian Resident Bear	0	417
1st Non-Resident Bear	906	91,698
2nd Non-Resident Bear	0	1,893
1st Saskatchewan Resident White-tailed Deer	42,110	1,248,122
1st Canadian Resident White-tailed Deer	738	96,020
1st Non-resident White-tailed Deer	672	159,813
2nd Saskatchewan Resident White-tailed Deer	8,124	237,970
2nd Canadian Resident White-tailed Deer	48	8,149
2nd Non-resident White-tailed Deer	187	54,211
1st Saskatchewan Anterless White-tailed Deer	864	24,809
Saskatchewan Resident Regular Elk	2,658	81,883
Saskatchewan Resident Regular Moose	9,557	281,043
Guide Moose: Canadian and Non-resident	252	71,270
Big Game Draw		
Special Elk	1,265	60,808
Special Moose	1,883	90,744
Special Moose Archery	46	2,222
Antelope	5,047	170,360
Antelope Archery	344	11,635
Either-sex Mule Deer	6,446	217,557
Either-sex Mule Deer Archery	1,009	34,152
Antlerless Mule Deer	3,416	115,154
Antlerless Mule Deer Archery	56	1,893
Muzzleloading Either-sex Mule Deer	379	12,814
Muzzleloading Antlerless Mule Deer	143	4,767
Total Big Game	**89,152**	**3,128,114**
Trapping		
South Saskatchewan Fur	4,124	136,198
North Saskatchewan Fur	2,364	23,708
Total Trapping	**6,488**	**159,906**
Total Receipts, Game and Fur Licences	**200,713**	**4,652,913**

Table No. 12 Fisheries Licence Sales 1989-90

	Number Sold	Dollar Revenue
Sport		
Resident	148,065	$2,184,482
Non-resident	19,461	574,090
One day	2,297	16,708
Total	**169,823**	**$2,775,280**
Commercial		
Fish Processing Plant	7	176
Commercial Net	2,014	27,874
Brine Shrimp Net	24	480
Bait Fish	74	1,429
Fish Farm		
Private	2,083	—
Commercial	129	1,868
Fur Farm	2	281
Total	**4,333**	**32,108**
Domestic		
Domestic Net	**367**	**1,540**

Table No. 13 Commercial Fish Production 1989-90

Species	Kilograms	Lake Value
Whitefish	1,061,528	777,303
Walleye	548,935	1,235,760
Pike	817,504	538,876
Trout	500,038	511,876
Other	251,683	94,897
Total	**3,179,688**	**3,158,712**

Summary of Fish Stocking 1989-90

Species		Number Stocked	Number of Waters Stocked
Atlantic Salmon	Catchables	4,100	1
Walleye	Fry	34,662,000	77*
	Fingerlings	339,832	15
Arctic Grayling	Fry	12,000	1
Brook Trout	Fingerlings	73,800	35
	Catchables	25	2
Cutthroat Trout	Fingerlings	18,206	2
Lake Trout	Fingerlings	125,000	2
Rainbow Trout	Fry	120,000	1
	Fingerlings	305,150	61
	Catchables	9,878	5
Splake	Fingerlings	197,600	24
Perch	Fingerlings	8,500	2
Total		**35,876,091**	**228**

* Includes 1,980,000 fry stocked in 11 rearing ponds.